UNITED STATED DEPARTMENT OF AGRICULTURE
Agricultural Research Service

1. CERTIFICATE NUMBER: 51-F-0012
CUSTOMER NUMBER: 529

FORM APPROVED
OMB NO. 0579-0036

DEC 09 2005

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Agricultural Research Service
USDA-ARS-ANRI, Building 209, BARC-East
Beltsville, MD 20705

Telephone: (301) 504-5714

3. Reporting Facility (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) – See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OD RESEARCH FACILITY (Attach additional sheets if necessary or use this form.

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedure producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report)	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs		2			2
5. Cats	15	477			492
6. Guinea Pigs		10			10
7. Hamsters					
8. Rabbits		6			6
9. Non-human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
Cattle		8			8
13. Other Animals					
Gerbils		165			165

ASSURANCE STATEMENTS

1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility

2) Each principal investigator has considered alternatives to painful procedures

3) This facility is adhering to the standards under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this animal report. In addition to identifying the IACUG approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.

4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUAARTERS RESEARCH FACILITY OFFICIAL
(CHIEF EXECUTIVE OFFICER or LEGALLY RESPONSIBLE INSTITUTIONAL OFFICIAL)
I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

SIG [redacted] (b)(6), (b)(7)c

DATE SIGNED 11-21-05

APHIS FORM 7023 (AUG 91) (Replaces VS FORM 18-23 (OCT 88), which is obsolete.)

Attachment

Certificate number: 51-F-0012
Customer number: 529

3. Reporting Facility Locations

(b)(2)High, (b)(7)f

Experimental work with the animals used in endotoxin studies is aimed at understanding the origins and remediation of the proinflammatory cytokine response axis. Administration of analgesic, COX-2 inhibitor drugs, glugogorticoid steroids and fever reducing drugs interferes with the onset of the needed experimental response and as such are inappropriate for the nature of the experiments. In addition tranquilizing drigs complicate the perturbed metabolic response to the proinflammatory stress agent augmenting the severity of the response. For example metabolic degangements occur even with a minimal use of the tranquilizing agent xylazine. Xylazine is classified as an α-2 receptor agonist which potentially complicates physiological recovery from endotoxin challenge due to its effect on metabolism to cause rapid hyperglycemia. Over the years we have titrated the dose down to a minimal level to achieve affect but still experience the hyperglycemic status. Literature citations further document an α-2 receptor-mediated reticulorumen (ruminant) as well as duodenal (monogastric) stasis during endotoxemia and the excess administration of xylazine was implicated in further complicating this stasis condition. The stasis can result in bloating, acidosis, and cardiopulmonary decompensation.